

## AMENDMENTS TO THE CLAIMS

**Claim 1 (Currently Amended)** A frame-cyclic noise reduction method employed for an image display device in which one field is divided into a plurality of sub-fields, each sub-field having of which has a predetermined weight of luminance, and in which turned-on sub-fields are properly combined to provide an image with gradation, the frame-cyclic noise reduction method comprising:

detecting an area in which a signal level changes as an image moves where an edge-portion of an image becomes unclear, i.e., where sub-field fuzziness becomes worse; and

controlling a cyclic amount for the detected area in which the sub-field fuzziness becomes worse so as to be different from a cyclic amount for other areas.

**Claim 2 (Currently Amended)** The frame-cyclic noise reduction method of Claim 1, further comprising detecting wherein a movement amount is detected according to a differential signal calculated as a difference between a current-frame image signal and a one-frame-before image signal, wherein each of and the cyclic amount for the detected area and the cyclic amount for the other areas is decreased as the movement amount increases in the area where the sub-field fuzziness becomes worse or in other areas.

**Claim 3 (Currently Amended)** A~~The~~ frame-cyclic noise reduction method of Claim 2, employed for an image display device in which one field is divided into a plurality of sub-fields, each sub-field having a predetermined weight of luminance, and in which turned-on sub-fields are properly combined to provide an image with gradation, the frame-cyclic noise reduction

method comprising:

detecting an area where an edge portion of an image becomes unclear, that is, where sub-field fuzziness becomes worse; and

controlling a cyclic amount for the area in which the sub-field fuzziness becomes worse to be different from a cyclic amount for other areas,

wherein a movement amount is detected according to a differential signal calculated as a difference between a current-frame image signal and a one-frame-before image signal, and the cyclic amount is decreased as the movement amount increases in the area where the sub-field fuzziness becomes worse or in the other areas, and

wherein a cyclic amount corresponding to a movement amount in the area where the sub-field fuzziness becomes worse is determined to be equal to, or to be smaller than the cyclic amount for areas other than the area where the sub-field fuzziness becomes worse.

**Claim 4 (Currently Amended)**     ~~A~~The frame-cyclic noise reduction method of Claim 1,  
employed for an image display device in which one field is divided into a plurality of sub-fields  
,each sub-field having a predetermined weight of luminance, and in which turned-on sub-fields  
are properly combined to provide an image with gradation, the frame-cyclic noise reduction  
method comprising:

detecting an area where an edge portion of an image becomes unclear, that is, where sub-field fuzziness becomes worse; and

controlling a cyclic amount for the area in which the sub-field fuzziness becomes worse to be different from a cyclic amount for other areas,

wherein the area where the sub-field fuzziness becomes worse is included in an area in which an image signal level decreases along a moving direction of an image when the sub-fields constituting the one field are arranged in an ascending order of weight of luminance, whereas the area where the sub-field fuzziness becomes worse is included in an area in which an image signal level increases along a moving direction of an image when the sub-fields constituting the one field are arranged in a descending order of weight of luminance.

**Claim 5 (Currently Amended)** A frame-cyclic noise reduction device employed for an image display device in which one field is divided into a plurality of sub-fields, each sub-field ~~having of which has~~ a predetermined weight of luminance, and in which turned-on sub-fields are properly combined to provide an image with gradation, the frame-cyclic noise reduction device comprising:

a luminance change area detector for detecting an area where an edge portion of an image becomes unclear, ~~i.e., that is~~, where sub-field fuzziness becomes worse;

a movement amount detector for detecting a movement amount of an image according to a differential signal calculated as a difference between a current-frame image signal and a one-frame-before image signal; and

a cyclic amount determining section for determining a cyclic amount according to outputs from the luminance change area detector and the movement amount detector,

wherein, the cyclic amount determining section contains at least two translation tables for translating from the movement amount to the cyclic amount, and selects one translation table from the translation tables according to the output from the luminance change area detector.